

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Cancelled)

2. (Currently Amended) Method according to Claim ~~121~~, ~~characterised in that~~wherein the protective gas containing the ~~said third hydrogen and/or helium content~~amount of second gas is hydrogen gas or helium gas.

3. (Currently Amended) Method according to Claim ~~121~~, ~~characterised in that~~wherein protective gas containing the ~~said third hydrogen content~~amount of second gas is a gas containing hydrogen and nitrogen ~~issuing that~~issues directly from an industrial process, without any prior mixing step.

4. (Currently Amended) Method according to Claim 3, ~~characterised in that~~wherein the gas containing hydrogen and nitrogen is an ammonia cracking gas.

5. (Currently Amended) Method according to claim ~~121~~, ~~characterised in that it~~wherein the method comprises the ~~said~~ at least one introduction of nitrogen into the chamber

solely outside the said at least one cooling zone having the ~~said~~ second gas atmosphere.

6. (Currently Amended) Method according to claim ~~121~~, ~~characterised in that it~~ wherein the method comprises the ~~said~~ at least one introduction of nitrogen into the chamber simultaneously outside the said at least one cooling zone having the ~~said~~ second gas atmosphere and ~~in this~~ inside the said at least one cooling zone having the second atmosphere.

7. (Currently Amended) Method according to claim ~~211~~, ~~characterised in that~~ wherein the said first atmosphere ~~contains~~ has a hydrogen and/or helium content of 3% to 5% by volume.

8. (Currently Amended) Method according claim ~~121~~, ~~characterised in that~~ wherein the said second atmosphere ~~contains~~ has a hydrogen and/or helium content of 5% to 25% by volume.

9. (Currently Amended) Method according to claim ~~121~~, ~~characterised in that the~~ wherein pressure in the chamber is 1 to 3 mbar.

10. (Currently Amended) Method according claim ~~121~~, ~~characterised in that it comprises~~ comprising, in the said at least one cooling zone having the ~~said~~ second gas atmosphere,

an induction of protective gas into a recirculation circuit, its cooling and its putting back into circulation in this at least one zone from the said circuit.

11. (Currently Amended) Method according to claim ~~121~~, ~~characterised in that~~wherein the total flow of atmosphere gas injected and introduced is 400 to 1000 Nm³/h and in that the flow of recirculated gas is 1000 to 5000 times the flow of atmosphere gas injected and introduced.

Claim 12. (Cancelled)

13. (Currently Amended) Method according to claim 4, ~~characterised in that it comprises~~comprising the said-at least one introduction of nitrogen into the chamber solely outside the ~~said-at~~ least one cooling zone having the said second atmosphere.

14. (Currently Amended) Method according to claim 5, ~~characterised in that it comprises~~comprising the said-at least one introduction of nitrogen into the chamber simultaneously outside the ~~said-at~~ least one cooling zone having the ~~said-second~~ atmosphere and ~~in this~~inside the at least one cooling zone having the second atmosphere.

15. (Currently Amended) Method according to claim 6, ~~characterised in that~~wherein the said first atmosphere ~~contains~~has a hydrogen and/or helium content of 3% to 5% by volume.

16. (Currently Amended) Method according to claim 7, ~~characterised in that~~wherein the ~~said~~ second atmosphere ~~contains~~has a hydrogen and/or helium content of 5% to 25% by volume.

17. (Currently Amended) Method according to claim 8, ~~characterised in that~~wherein the pressure in the chamber is 1 to 3 mbar.

18. (Currently Amended) Method according claim 9, ~~characterised in that it comprises~~wherein, in the ~~said~~ at least one cooling zone having the ~~said~~ second gas atmosphere, an induction of protective gas into a recirculation circuit, its cooling and its putting back into circulation in this at least one zone from the said circuit.

19. (Currently Amended) Method according to claim 10, ~~characterised in that~~wherein total flow of atmosphere gas injected and introduced is 400 to 1000 Nm³/h and ~~in that~~wherein the flow of recirculated gas is 1000 to 5000 times the flow of atmosphere gas injected and introduced.

Claim 20. (Cancelled)

21. (New) A method for heat treating metallic strips inside a heat treatment chamber having a pressure greater than atmospheric pressure comprising:

- a. passing the strip through at least one heating zone of the chamber;
- b. moving the strip through at least one cooling zone of the chamber; and
- c. establishing a first protective gas atmosphere containing nitrogen and a first amount of a second gas consisting of hydrogen, helium, and mixtures thereof in all but at least one cooling zone;
- d. providing a second protective gas atmosphere in the at least one cooling zone, said second protective gas atmosphere containing nitrogen and a second amount of said second gas, wherein the second amount of the second gas is greater than the first amount of the second gas;
- e. at least one introduction of nitrogen into the chamber;
- f. at least one injection of a third protective gas containing nitrogen and a third content of said second gas into the at least one cooling zone having the second protective gas atmosphere;

g. whereby a gaseous exchange occurs between at least one zone of the chamber having the first gas atmosphere and the at least one cooling zone having the second gas atmosphere; and

h. controlling the flow rate of the at least one introduction and the at least one injection according to the gaseous exchange between zones, whereby the pressure of the chamber and the amounts of second protective gas are obtained in the first and second protective gas atmospheres;

i. wherein controlling the flow rate comprises maintaining a pressure in at least one cooling zone that is greater than the pressure in the chamber outside the at least one cooling zone.